QC ABSTRACT

NAME OF WORK: Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
		Materials				
1	Cement	Fineness by dry sieving	One Test		1	1
		Finess by Air permeablity method	One Test		1	1
		Density	One Test		1	1
		Standard Consistency	One Test		1	1
		Initial Setting time	One Test		1	1
		Final Setting time	One Test		1	1
		Soundness (Le Chatelier's Method)	One Test		1	1
		Compressive Strength	One Test		1	1
2	Coarse aggregate(40 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
3	Coarse aggregate(20 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
		Aggregate crushing Value	One Test		1	1
		Aggregate Impact Value	One Test		1	1
4	Fine aggregate	SIEVE ANALYSIS	One Test		1	1
		Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
5	Precast (100mm)	Core Compressive Strength	One Test		1	1
		Corrected Cylinder Compressive Strength	One Test		1	1
		Equivalent Cube Compressive Strength	One Test		1	1
6	GSB	SIEVE ANALYSIS	One Test		1	1
7	WMM	Sieve Analysis	One Test		1	1
		Impact Value	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	CP-2020-10-09-38 **Date: 25-06-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No 392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer's Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	22-06-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	23-06-20
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

SLNo.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	2.2	–
2	Finess by Air permeablity method (m^2/kg,Min)	249.5	225m^2/kg, Min
3	Density (gm/cc)	3.14	–
4	Standard Consistency (%)	27.5%	Not specified
5	Initial Setting time	170 minutes	Not less than 30 minutes
6	Final Setting time	260 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

* The results obtained are satisfactory as per standard requirements.

Note:

The results pertain to the samples received and tested.

All information furnished by Customer/Representative

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2020-10-09-38** **Date: 21-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer's Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	22-06-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test	:	23-06-20
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Compressive Strength			
SLNo.	**Physical properties**	**Results**	**Requirement as per IS 12269: 2013**
1	3 Days	28.6N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.4N/mm^2	Not less than 37 N/mm^2
3	28 Days	58.6N/mm^2	Not less than 53 N/mm^2

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2020-10-09-38** **Date: 21-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer's Reference	:	BBMP/EE/YNK.D/EPMT-01/W O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	22-06-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test	:	23-06-20
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Compressive Strength			
SLNo.	**Physical properties**	**Results**	**Requirement as per IS 12269: 2013**
1	3 Days	28.6N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.4N/mm^2	Not less than 37 N/mm^2
3	28 Days	58.6N/mm^2	Not less than 53 N/mm^2

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TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2020-10-09-38** **Date: 25-06-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer's Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample condition	:	Satisfactory
Date of Receipt	:	22-06-20
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	22-06-20

AE-1

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : **15000 grams**

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	423	423	2.8	97.2	90-100
3	20 mm	5852	6275	41.8	58.2	30-70
4	10 mm	4232	10507	70.0	30.0	10-35
5	4.75 mm	4225	14732	98.2	1.8	0-5
6	Pan	268	15000	100.0	0	

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TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2020-10-09-38 Date: 25-06-20

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	12.3	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	11.6	
3	Specific Gravity	2.68	–
4	Bulk Density(Loose) (Kg/l)	1.56	–
5	Bulk Density(Compacted) (Kg/l)	1.59	–
6	Water Absorption(%)	0.23	–

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TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2020-10-09-38** **Date: 24-06-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	22-06-20
Sample Type/ Size	:	20mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	22-06-20

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AE-1

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : **5000** **grams**

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	278	278	5.6	94.4	90-100
3	10 mm	2754	3032	60.6	39.4	25-55
4	4.75 mm	1754	4786	95.7	4.3	0-10
5	Pan	214	5000	100	0	–

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TEST REPORT OF FINE AGGREGATE

Lab ID : CP-2020-10-09-38 **Date: 24-06-20**

Customer : Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.

Address : Yelahanka Sub Division, BBMP, Bangalore.

Project Name : Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division

Agency : Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072

Customer's Reference : BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 22-06-20

Sample Type : Fine Aggregate

Reference to BIS codes : IS 383 : 2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1, 3) RA2012
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption

Date of test : 22-06-20

Total weight taken : 1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	86	86	8.6	91.4	90-100	90-100	90-100	95-100
3	2.36 mm	145	231	23.1	76.9	60-95	75-100	85-100	95-100
4	1.18 mm	156	387	38.7	61.3	30-70	55-90	75-100	90-100
5	600 micron	188	575	57.5	42.5	15-34	35-59	60-79	80-100
6	300 micron	175	750	75.0	25.0	5-20	8-30	12-40	15-50
7	150 micron	162	912	91.2	8.8	0-10	0-10	0-10	0-15
8	Pan	88	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

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TEST REPORT OF FINE AGGREGATE

Lab ID : CP-2020-10-09-38

Date: 24-06-20

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	2.4	–
2	Specific Gravity	2.59	–
3	Material finer than 75 micron(%)	5.9	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

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Format No: CP/TF/01

TEST REPORT OF PRECAST COVER SLAB

Lab ID	:	**CP-2020-10-09-38** **Date: 03-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer's Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	29-06-20
Sample Type /Size	:	Precast Cover Slab (100mm)
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete
Date of test	:	29/06/2020

Sl. No.	Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
		(mm)	(mm)	(kg)	(Sq.mm)	(KN)	(N/mm^2)	(N/mm^2)	(N/mm^2)
1	Cover Slab-1	75.51	100.48	1.116	4477	80.9	18.1	16.8	21.0
2	Cover Slab-2	75.49	100.52	1.122	4475	82.3	18.4	17.1	21.4
3	Cover Slab-3	75.50	100.51	1.118	4476	81.5	18.2	16.9	21.2

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TEST RESULTS OF GRADATION FOR GSB
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2020-10-09-38** **Date: 04-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	02-07-20
Type of Mix	:	GSB (Granular Sub Base)
Date of test	:	02-07-20
Oven Dry Weight	:	10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec. Limit Vide Table 400.1 MORTH Specification
75	0	0	0	100	100
53	997	997	9.97	90.03	80-100
26.5	1685	2682	26.82	73.18	55-90
9.5	1292	3974	39.74	60.26	35-65
4.75	1490	5464	54.64	45.36	25-55
2.36	1764	7228	72.28	27.72	20-40
0.425	1666	8894	88.94	11.06	10-25
0.075	1106	10000	100.00	0.00	0-5

TESTS ON FILLER SCREEN MATERIALS

Sl no	Particulars	Test results	Spec.Limit Vide Table
1	Liquid Limit, %	21.33%	Maximum 25
2	Plasticity index, %	Non plastic	Maximum 6

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Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	**CP-RW-2020-10-09-38** **Date: 08-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	06-07-20
Type of Mix	:	WMM (Wet Mix Macadam)
Date of test	:	06-07-20
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	315	315	2.9	97.1	95-100
22.4	2259	2574	23.4	76.6	60-80
11.2	2179	4753	43.2	56.8	40-60
4.75	2251	7004	63.7	36.3	25-40
2.36	1621	8625	78.4	21.6	15-30
0.6	623	9248	84.1	15.9	8-22
0.075	1338	10586	96.2	3.8	0-5

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DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2020-10-09-38** **Date: 08-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	06-07-20
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	06-07-20

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.3%	

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TEST RESULTS OF GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	CP-RW-2020-10-09-38 Date: 16-07-20
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	14-07-20
Type of Mix	:	DBM-Plant (Dense Bituminous Macadam)
Date of test	:	14-07-20
Weight of Sample	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10 (grading -2)
37.5	0	0	0	100	100
26.5	250	250	5.00	95.00	90-100
19	350	600	12.00	88.00	71-95
13.2	450	1050	21.00	79.00	56-80
4.75	1750	2800	56.00	44.00	38-54
2.36	400	3200	64.00	36.00	28-42
0.3	1350	4550	91.00	9.00	7-21
0.075	250	4800	96.00	4.00	2-8
PAN	200	5000	0.00	0	0

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Quality Manager

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End of Report

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2020-10-09-38** **Date: 17-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	14-07-20
Type of Mix	:	DBM(Dense Bitumnous Macadam)
Date of test	:	14-07-20
Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.2	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Date: 23-07-20

Lab ID	:	CP-RW-2020-10-09-38
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	22-07-20
Type of Mix	:	DBM (Dense Bituminous Macadam)
Date of test	:	22-07-20

SLno	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	475	476
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	4.8	4.8
4	Average percentage	%	4.8	

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TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	CP-RW-2020-10-09-38 **Date: 20-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	18-07-20
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of test	:	18-07-20
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	89	89	1.8	98.2	90-100
9.5	702	791	15.8	84.2	70-88
4.75	895	1686	33.7	66.3	53-71
2.36	587	2273	45.5	54.5	42-58
1.18	492	2765	55.3	44.7	34-48
0.6	503	3268	65.4	34.6	26-38
0.3	528	3796	75.9	24.1	18-28
0.15	458	4254	85.1	14.9	12-20
0.075	350	4604	92.1	7.9	4-10
PAN	396	5000	100	0.0	0

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TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2020-10-09-38** **Date: 21-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	18-07-20
Type of Mix	:	BC(Bitumenous Concrete)
Date of test	:	18-07-20

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.3	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID	:	CP-RW-2020-10-09-38	**Date: 24-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.	
Address	:	Yelahanka Sub Division, BBMP, Bangalore.	
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division	
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072	
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21	
Source of Sample	:	Sample supplied by Agency	
Date of Receipt	:	23-07-20	
Type of Mix	:	BC (Bituminous Concrete)	
Date of test	:	23-07-20	

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	471	470
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.80	6.00
4	Average percentage	%	5.9	

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Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-RW-2020-10-09-38**
		Date: 13-07-20
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer's Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	11-07-20
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-1220(1978) (Reaffirmed-2004)
Date of test	:	11-07-20

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	64	60 to 70
2	Softening Point, °C	51.2	Min. 40°C
3	Ductility, cm	98	Min. 75cm
4	Flash point, °C	245	Min. 220°C
	Fire point, °C	272	

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DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID	:	**CP-RW-2020-10-09-38** **Date: 24-07-20**
Customer	:	Assistant Executive Engineer, Yelahanka Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Sub Division, BBMP, Bangalore.
Project Name	:	Asphalting to Road from N.H Road Towards Kerekodi Road, Main Road and Cross Roads at Venkatal Village in Ward No-01 Kempegowda of Yelahanka Sub Division
Agency	:	Sri H.S. Prakash, No:392, 7th Main Road, ITI Layout, Nagarabhavi, 2nd Stage, Bangalore Vishwavidalaya Bangalore-560072
Customer Reference	:	BBMP/EE/YNK.D/EPMT-01/W.O/56/2020-21
Sample Condition	:	Satisfactory
Date of Receipt	:	23-07-20
Type of Mix	:	Tack coat
Date of test	:	23-07-20

SLNo	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.023
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.256
7	Average	Kg/sq.m	0.256	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

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